

#8

F. Seitelha
Tung

RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/432,503

TIME: 09:34:58

Input Set : N:\Crf3\RULE60\09432503.txt

Output Set: N:\CRF3\10182001\I432503.raw

SEQUENCE LISTING

4 (1) GENERAL INFORMATION:

6 (i) APPLICANT: Cech, Thomas R.

7 Lingner, Joachim

8 Nakamura, Toru

9 Chapman, Karen B.

10 Morin, Gregg B.

11 Harley, Calvin B.

12 Andrews, William H.

14 (ii) TITLE OF INVENTION: Human Telomerase Catalytic Subunit

16 (iii) NUMBER OF SEQUENCES: 727

18 (iv) CORRESPONDENCE ADDRESS:

19 (A) ADDRESSEE: Townsend and Townsend and Crew LLP

20 (B) STREET: Two Embarcadero Center, Eighth Floor

21 (C) CITY: San Francisco

22 (D) STATE: California

23 (E) COUNTRY: USA

24 (F) ZIP: 94111-3834

26 (v) COMPUTER READABLE FORM:

27 (A) MEDIUM TYPE: Floppy disk

28 (B) COMPUTER: IBM PC compatible

29 (C) OPERATING SYSTEM: PC-DOS/MS-DOS

30 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

32 (vi) CURRENT APPLICATION DATA:

C--> 33 (A) APPLICATION NUMBER: US/09/432,503

C--> 34 (B) FILING DATE: 02-Nov-1999

35 (C) CLASSIFICATION:

73 (vii) PRIOR APPLICATION DATA:

38 (A) APPLICATION NUMBER: 08/974,549

39 (B) FILING DATE:

42 (A) APPLICATION NUMBER: US 08/844,419

43 (B) FILING DATE: 18-APR-1997

46 (A) APPLICATION NUMBER: US 08/846,017

47 (B) FILING DATE: 25-APR-1997

50 (A) APPLICATION NUMBER: US 08/851,843

51 (B) FILING DATE: 06-MAY-1997

54 (A) APPLICATION NUMBER: US 08/854,050

55 (B) FILING DATE: 09-MAY-1997

58 (A) APPLICATION NUMBER: US 08/911,312

59 (B) FILING DATE: 14-AUG-1997

62 (A) APPLICATION NUMBER: US 08/912,951

63 (B) FILING DATE: 14-AUG-1997

66 (A) APPLICATION NUMBER: US 08/915,503

67 (B) FILING DATE: 14-AUG-1997

70 (A) APPLICATION NUMBER: WO PCT/US97/17618

71 (B) FILING DATE: 01-OCT-1997

74 (A) APPLICATION NUMBER: WO PCT/US97/17885

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/432,503

DATE: 10/18/2001

TIME: 09:34:58

Input Set : N:\Crf3\RULE60\09432503.txt

Output Set: N:\CRF3\10182001\I432503.raw

```

75      (B) FILING DATE: 01-OCT-1997
77      (viii) ATTORNEY/AGENT INFORMATION:
78          (A) NAME: Apple, Randolph Ted
79          (B) REGISTRATION NUMBER: 36,429
80          (C) REFERENCE/DOCKET NUMBER: 015389-002610US
82      (ix) TELECOMMUNICATION INFORMATION:
83          (A) TELEPHONE: (415) 576-0200
84          (B) TELEFAX: (415) 576-0300
87      (2) INFORMATION FOR SEQ ID NO: 1:
89          (i) SEQUENCE CHARACTERISTICS:
90              (A) LENGTH: 4015 base pairs
91              (B) TYPE: nucleic acid
92              (C) STRANDEDNESS: single
93              (D) TOPOLOGY: linear
95          (ii) MOLECULE TYPE: cDNA
98          (ix) FEATURE:
99              (A) NAME/KEY: CDS
100             (B) LOCATION: 56..3454
101             (D) OTHER INFORMATION: /product= "hTRT"
102 /note= "human telomerase reverse
103 transcriptase (hTRT) catalytic protein
104 component"
107          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
109 GCAGCGCTGC GTCCTGCTGC GCACGTGGGA AGCCCTGGCC CCGGCCACCC CCGCG ATG      58
110                                         Met
111                                         1
113 CCG CGC GCT CCC CGC TGC CGA GCC GTG CGC TCC CTG CTG CGC AGC CAC      106
114 Pro Arg Ala Pro Arg Cys Arg Ala Val Arg Ser Leu Leu Arg Ser His
115           5              10              15
117 TAC CGC GAG GTG CTG CCG CTG GCC ACG TTC GTG CGG CGC CTG GGG CCC      154
118 Tyr Arg Glu Val Leu Pro Leu Ala Thr Phe Val Arg Arg Leu Gly Pro
119           20              25              30
121 CAG GGC TGG CGG CTG GTG CAG CGC GGG GAC CCG GCG GCT TTC CGC GCG      202
122 Gln Gly Trp Arg Leu Val Gln Arg Gly Asp Pro Ala Ala Phe Arg Ala
123           35              40              45
125 CTG GTG GCC CAG TGC CTG GTG TGC GTG CCC TGG GAC GCA CGG CCG CCC      250
126 Leu Val Ala Gln Cys Leu Val Cys Val Pro Trp Asp Ala Arg Pro Pro
127 50              55              60              65
-----
129 CCC-GCC-GCC-CCC-TCC-TTC-CGC-CAG-GTG-TCC-TGC-CTG-AAG-GAG-CTG-GTG-----298-----
130 Pro Ala Ala Pro Ser Phe Arg Gln Val Ser Cys Leu Lys Glu Leu Val
131           70              75              80
133 GCC CGA GTG CTG CAG AGG CTG TGC GAG CGC GGC GCG AAG AAC GTG CTG      346
134 Ala Arg Val Leu Gln Arg Leu Cys Glu Arg Gly Ala Lys Asn Val Leu
135           85              90              95
137 GCC TTC GGC TTC GCG CTG CTG GAC GGG GCC CGC GGG GGC CCC CCC GAG      394
138 Ala Phe Gly Phe Ala Leu Leu Asp Gly Ala Arg Gly Gly Pro Pro Glu
139           100             105             110
141 GCC TTC ACC ACC AGC GTG CGC AGC TAC CTG CCC AAC ACG GTG ACC GAC      442
142 Ala Phe Thr Thr Ser Val Arg Ser Tyr Leu Pro Asn Thr Val Thr Asp

```

RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/432,503

TIME: 09:34:58

Input Set : N:\Crf3\RULE60\09432503.txt

Output Set: N:\CRF3\10182001\I432503.raw

143	115	120	125	
145	GCA CTG CGG GGG AGC GGG GCG TGG GGG CTG CTG CTG CGC CGC GTG GGC	490		
146	Ala Leu Arg Gly Ser Gly Ala Trp Gly Leu Leu Leu Arg Arg Val Gly			
147	130 135 140 145			
149	GAC GAC GTG CTG GTT CAC CTG CTG GCA CGC TGC GCG CTC TTT GTG CTG	538		
150	Asp Asp Val Leu Val His Leu Leu Ala Arg Cys Ala Leu Phe Val Leu			
151	150 155 160			
153	GTG GCT CCC AGC TGC GCC TAC CAG GTG TGC GGG CCG CCG CTG TAC CAG	586		
154	Val Ala Pro Ser Cys Ala Tyr Gln Val Cys Gly Pro Pro Leu Tyr Gln			
155	165 170 175			
157	CTC GGC GCT GCC ACT CAG GCC CGG CCC CCG CCA CAC GCT AGT GGA CCC	634		
158	Leu Gly Ala Ala Thr Gln Ala Arg Pro Pro Pro His Ala Ser Gly Pro			
159	180 185 190			
161	CGA AGG CGT CTG GGA TGC GAA CGG GCC TGG AAC CAT AGC GTC AGG GAG	682		
162	Arg Arg Arg Leu Gly Cys Glu Arg Ala Trp Asn His Ser Val Arg Glu			
163	195 200 205			
165	GCC GGG GTC CCC CTG GGC CTG CCA GCC CCG GGT GCG AGG AGG CGC GGG	730		
166	Ala Gly Val Pro Leu Gly Leu Pro Ala Pro Gly Ala Arg Arg Arg Gly			
167	210 215 220 225			
169	GGC AGT GCC AGC CGA AGT CTG CCG TTG CCC AAG AGG CCC AGG CGT GGC	778		
170	Gly Ser Ala Ser Arg Ser Leu Pro Leu Pro Lys Arg Pro Arg Arg Gly			
171	230 235 240			
173	GCT GCC CCT GAG CCG GAG CGG ACG CCC GTT GGG CAG GGG TCC TGG GCC	826		
174	Ala Ala Pro Glu Pro Glu Arg Thr Pro Val Gly Gln Gly Ser Trp Ala			
175	245 250 255			
177	CAC CCG GGC AGG ACG CGT GGA CCG AGT GAC CGT GGT TTC TGT GTG GTG	874		
178	His Pro Gly Arg Thr Arg Gly Pro Ser Asp Arg Gly Phe Cys Val Val			
179	260 265 270			
181	TCA CCT GCC AGA CCC GCC GAA GAA GCC ACC TCT TTG GAG GGT GCG CTC	922		
182	Ser Pro Ala Arg Pro Ala Glu Glu Ala Thr Ser Leu Glu Gly Ala Leu			
183	275 280 285			
185	TCT GGC ACG CGC CAC TCC CAC CCA TCC GTG GGC CGC CAG CAC CAC GCG	970		
186	Ser Gly Thr Arg His Ser His Pro Ser Val Gly Arg Gln His His Ala			
187	290 295 300 305			
189	GGC CCC CCA TCC ACA TCG CGG CCA CCA CGT CCC TGG GAC ACG CCT TGT	1018		
190	Gly Pro Pro Ser Thr Ser Arg Pro Pro Arg Pro Trp Asp Thr Pro Cys			
191	310 315 320			
193	CCC CCG GTG TAC GCC GAG ACC AAG CAC TTC CTC TAC TCC TCA GGC GAC	1066		
194	Pro Pro Val Tyr Ala Glu Thr Lys His Phe Leu Tyr Ser Ser Gly Asp			
195	325 330 335			
197	AAG GAG CAG CTG CGG CCC TCC TTC CTA CTC AGC TCT CTG AGG CCC AGC	1114		
198	Lys Glu Gln Leu Arg Pro Ser Phe Leu Leu Ser Ser Leu Arg Pro Ser			
199	340 345 350			
201	CTG ACT GGC GCT CGG AGG CTC GTG GAG ACC ATC TTT CTG GGT TCC AGG	1162		
202	Leu Thr Gly Ala Arg Arg Leu Val Glu Thr Ile Phe Leu Gly Ser Arg			
203	355 360 365			
205	CCC TGG ATG CCA GGG ACT CCC CGC AGG TTG CCC CGC CTG CCC CAG CGC	1210		
206	Pro Trp Met Pro Gly Thr Pro Arg Arg Leu Pro Arg Leu Pro Gln Arg			
207	370 375 380 385			

RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/432,503

TIME: 09:34:58

Input Set : N:\Crf3\RULE60\09432503.txt

Output Set: N:\CRF3\10182001\I432503.raw

209	TAC	TGG	CAA	ATG	CGG	CCC	CTG	TTT	CTG	GAG	CTG	CTT	GGG	AAC	CAC	GCG	1258
210	Tyr	Trp	Gln	Met	Arg	Pro	Leu	Phe	Leu	Glu	Leu	Leu	Gly	Asn	His	Ala	
211					390					395						400	
213	CAG	TGC	CCC	TAC	GGG	GTG	CTC	CTC	AAG	ACG	CAC	TGC	CCG	CTG	CGA	GCT	1306
214	Gln	Cys	Pro	Tyr	Gly	Val	Leu	Leu	Lys	Thr	His	Cys	Pro	Leu	Arg	Ala	
215					405					410						415	
217	GCG	GTC	ACC	CCA	GCA	GCC	GGT	GTC	TGT	GCC	CGG	GAG	AAG	CCC	CAG	GGC	1354
218	Ala	Val	Thr	Pro	Ala	Ala	Gly	Val	Cys	Ala	Arg	Glu	Lys	Pro	Gln	Gly	
219					420					425						430	
221	TCT	GTG	GCG	GCC	CCC	GAG	GAG	GAG	GAC	ACA	GAC	CCC	CGT	CGC	CTG	GTG	1402
222	Ser	Val	Ala	Ala	Pro	Glu	Glu	Glu	Asp	Thr	Asp	Pro	Arg	Arg	Leu	Val	
223					435					440						445	
225	CAG	CTG	CTC	CGC	CAG	CAC	AGC	AGC	CCC	TGG	CAG	GTG	TAC	GGC	TTC	GTG	1450
226	Gln	Leu	Leu	Arg	Gln	His	Ser	Ser	Pro	Trp	Gln	Val	Tyr	Gly	Phe	Val	
227	450									455						465	
229	CGG	GCC	TGC	CTG	CGC	CGG	CTG	GTG	CCC	CCA	GGC	CTC	TGG	GGC	TCC	AGG	1498
230	Arg	Ala	Cys	Leu	Arg	Arg	Leu	Val	Pro	Pro	Gly	Leu	Trp	Gly	Ser	Arg	
231										470						480	
233	CAC	AAC	GAA	CGC	CGC	TTC	CTC	AGG	AAC	ACC	AAG	AAG	TTC	ATC	TCC	CTG	1546
234	His	Asn	Glu	Arg	Arg	Phe	Leu	Arg	Asn	Thr	Lys	Lys	Phe	Ile	Ser	Leu	
235										485						495	
237	GGG	AAG	CAT	GCC	AAG	CTC	TCG	CTG	CAG	GAG	CTG	ACG	TGG	AAG	ATG	AGC	1594
238	Gly	Lys	His	Ala	Lys	Leu	Ser	Leu	Gln	Glu	Leu	Thr	Trp	Lys	Met	Ser	
239										500						510	
241	GTG	CGG	GAC	TGC	GCT	TGG	CTG	CGC	AGG	AGC	CCA	GGG	GTT	GGC	TGT	GTT	1642
242	Val	Arg	Asp	Cys	Ala	Trp	Leu	Arg	Arg	Ser	Pro	Gly	Val	Gly	Cys	Val	
243										515						525	
245	CCG	GCC	GCA	GAG	CAC	CGT	CTG	CGT	GAG	GAG	ATC	CTG	GCC	AAG	TTC	CTG	1690
246	Pro	Ala	Ala	Glu	His	Arg	Leu	Arg	Glu	Glu	Ile	Leu	Ala	Lys	Phe	Leu	
247	530									535						545	
249	CAC	TGG	CTG	ATG	AGT	GTG	TAC	GTC	GTC	GAG	CTG	CTC	AGG	TCT	TTC	TTT	1738
250	His	Trp	Leu	Met	Ser	Val	Tyr	Val	Val	Glu	Leu	Leu	Arg	Ser	Phe	Phe	
251										550						560	
253	TAT	GTC	ACG	GAG	ACC	ACG	TTT	CAA	AAG	AAC	AGG	CTC	TTT	TTC	TAC	CGG	1786
254	Tyr	Val	Thr	Glu	Thr	Thr	Phe	Gln	Lys	Asn	Arg	Leu	Phe	Phe	Tyr	Arg	
255										565						575	
257	AAG	AGT	GTC	TGG	AGC	AAG	TTG	CAA	AGC	ATT	GGA	ATC	AGA	CAG	CAC	TTG	1834
258	Lys	Ser	Val	Trp	Ser	Lys	Leu	Gln	Ser	Ile	Gly	Ile	Arg	Gln	His	Leu	
259										580						590	
261	AAG	AGG	GTG	CAG	CTG	CGG	GAG	CTG	TCG	GAA	GCA	GAG	GTC	AGG	CAG	CAT	1882
262	Lys	Arg	Val	Gln	Leu	Arg	Glu	Leu	Ser	Glu	Ala	Glu	Val	Arg	Gln	His	
263										595						605	
265	CGG	GAA	GCC	AGG	CCC	GCC	CTG	CTG	ACG	TCC	AGA	CTC	CGC	TTC	ATC	CCC	1930
266	Arg	Glu	Ala	Arg	Pro	Ala	Leu	Leu	Thr	Ser	Arg	Leu	Arg	Phe	Ile	Pro	
267	610									615						625	
269	AAG	CCT	GAC	GGG	CTG	CGG	CCG	ATT	GTG	AAC	ATG	GAC	TAC	GTC	GTG	GGA	1978
270	Lys	Pro	Asp	Gly	Leu	Arg	Pro	Ile	Val	Asn	Met	Asp	Tyr	Val	Val	Gly	
271										630						640	
273	GCC	AGA	ACG	TTC	CGC	AGA	GAA	AAG	AGG	GCC	GAG	CGT	CTC	ACC	TCG	AGG	2026

RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/432,503

TIME: 09:34:58

Input Set : N:\Crf3\RULE60\09432503.txt

Output Set: N:\CRF3\10182001\I432503.raw

274	Ala	Arg	Thr	Phe	Arg	Arg	Glu	Lys	Arg	Ala	Glu	Arg	Leu	Thr	Ser	Arg	
275				645					650					655			
277	GTG	AAG	GCA	CTG	TTC	AGC	GTG	CTC	AAC	TAC	GAG	CGG	GCG	CGG	CGC	CCC	2074
278	Val	Lys	Ala	Leu	Phe	Ser	Val	Leu	Asn	Tyr	Glu	Arg	Ala	Arg	Arg	Pro	
279			660					665					670				
281	GGC	CTC	CTG	GGC	GCC	TCT	GTG	CTG	GGC	CTG	GAC	GAT	ATC	CAC	AGG	GCC	2122
282	Gly	Leu	Leu	Gly	Ala	Ser	Val	Leu	Gly	Leu	Asp	Asp	Ile	His	Arg	Ala	
283		675						680					685				
285	TGG	CGC	ACC	TTC	GTG	CTG	CGT	GTG	CGG	GCC	CAG	GAC	CCG	CCG	CCT	GAG	2170
286	Trp	Arg	Thr	Phe	Val	Leu	Arg	Val	Arg	Ala	Gln	Asp	Pro	Pro	Pro	Glu	
287	690					695					700					705	
289	CTG	TAC	TTT	GTC	AAG	GTG	GAT	GTG	ACG	GGC	GCG	TAC	GAC	ACC	ATC	CCC	2218
290	Leu	Tyr	Phe	Val	Lys	Val	Asp	Val	Thr	Gly	Ala	Tyr	Asp	Thr	Ile	Pro	
291				710					715						720		
293	CAG	GAC	AGG	CTC	ACG	GAG	GTC	ATC	GCC	AGC	ATC	ATC	AAA	CCC	CAG	AAC	2266
294	Gln	Asp	Arg	Leu	Thr	Glu	Val	Ile	Ala	Ser	Ile	Ile	Lys	Pro	Gln	Asn	
295				725					730					735			
297	ACG	TAC	TGC	GTG	CGT	CGG	TAT	GCC	GTG	GTC	CAG	AAG	GCC	GCC	CAT	GGG	2314
298	Thr	Tyr	Cys	Val	Arg	Arg	Tyr	Ala	Val	Val	Gln	Lys	Ala	Ala	His	Gly	
299				740				745					750				
301	CAC	GTC	CGC	AAG	GCC	TTC	AAG	AGC	CAC	GTC	TCT	ACC	TTG	ACA	GAC	CTC	2362
302	His	Val	Arg	Lys	Ala	Phe	Lys	Ser	His	Val	Ser	Thr	Leu	Thr	Asp	Leu	
303		755					760					765					
305	CAG	CCG	TAC	ATG	CGA	CAG	TTC	GTG	GCT	CAC	CTG	CAG	GAG	ACC	AGC	CCG	2410
306	Gln	Pro	Tyr	Met	Arg	Gln	Phe	Val	Ala	His	Leu	Gln	Glu	Thr	Ser	Pro	
307	770					775					780					785	
309	CTG	AGG	GAT	GCC	GTC	GTC	ATC	GAG	CAG	AGC	TCC	TCC	CTG	AAT	GAG	GCC	2458
310	Leu	Arg	Asp	Ala	Val	Ile	Glu	Gln	Ser	Ser	Ser	Leu	Asn	Glu	Ala		
311				790					795					800			
313	AGC	AGT	GGC	CTC	TTC	GAC	GTC	TTC	CTA	CGC	TTC	ATG	TGC	CAC	CAC	GCC	2506
314	Ser	Ser	Gly	Leu	Phe	Asp	Val	Phe	Leu	Arg	Phe	Met	Cys	His	His	Ala	
315				805					810				815				
317	GTG	CGC	ATC	AGG	GGC	AAG	TCC	TAC	GTC	CAG	TGC	CAG	GGG	ATC	CCG	CAG	2554
318	Val	Arg	Ile	Arg	Gly	Lys	Ser	Tyr	Val	Gln	Cys	Gln	Gly	Ile	Pro	Gln	
319			820					825					830				
321	GGC	TCC	ATC	CTC	TCC	ACG	CTG	CTC	TGC	AGC	CTG	TGC	TAC	GGC	GAC	ATG	2602
322	Gly	Ser	Ile	Leu	Ser	Thr	Leu	Leu	Cys	Ser	Leu	Cys	Tyr	Gly	Asp	Met	
323		835					840						845				
325	GAG	AAC	AAG	CTG	TTT	GCG	GGG	ATT	CGG	CGG	GAC	GGG	CTG	CTC	CTG	CGT	2650
326	Glu	Asn	Lys	Leu	Phe	Ala	Gly	Ile	Arg	Arg	Asp	Gly	Leu	Leu	Leu	Arg	
327	850					855					860					865	
329	TTG	GTG	GAT	GAT	TTC	TTG	TTG	GTG	ACA	CCT	CAC	CTC	ACC	CAC	GCG	AAA	2698
330	Leu	Val	Asp	Asp	Phe	Leu	Leu	Val	Thr	Pro	His	Leu	Thr	His	Ala	Lys	
331					870					875					880		
333	ACC	TTC	CTC	AGG	ACC	CTG	GTC	CGA	GGT	GTC	CCT	GAG	TAT	GGC	TGC	GTG	2746
334	Thr	Phe	Leu	Arg	Thr	Leu	Val	Arg	Gly	Val	Pro	Glu	Tyr	Gly	Cys	Val	
335				885					890					895			
337	GTG	AAC	TTG	CGG	AAG	ACA	GTG	GTG	AAC	TTC	CCT	GTA	GAA	GAC	GAG	GCC	2794
338	Val	Asn	Leu	Arg	Lys	Thr	Val	Val	Asn	Phe	Pro	Val	Glu	Asp	Glu	Ala	

VERIFICATION SUMMARY

DATE: 10/18/2001

PATENT APPLICATION: US/09/432,503

TIME: 09:34:59

Input Set : N:\Crf3\RULE60\09432503.txt

Output Set: N:\CRF3\10182001\I432503.raw

L:33 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:34 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:1582 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:1650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:1653 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:1928 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1968 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:2000 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:2039 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:2119 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:2872 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49
L:2920 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50
L:4392 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=105
L:4414 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=106
L:4437 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=107
L:4465 M:220 C: Keyword misspelled or invalid format, [(D) TOPOLOGY:]
L:4465 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=108
L:4459 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=108
L:5078 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 111
L:5206 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 111
L:5302 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 111
L:5583 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=114
L:7973 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:195
L:8005 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:196
L:8053 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:197
L:8093 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:198
L:8149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:199
L:8562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:214
L:10089 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=238
L:10139 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=241
L:10892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:267
L:11801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293
L:11804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293
L:11807 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293
L:11810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293
~~L:11819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293~~
L:11822 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293
L:11825 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293
L:11828 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293
L:11886 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:295
L:11905 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:296
L:11908 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:296
L:12104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:304
L:12477 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:321
L:12480 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:321

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/432,503

DATE: 10/18/2001

TIME: 09:34:59

Input Set : N:\Crf3\RULE60\09432503.txt

Output Set: N:\CRF3\10182001\I432503.raw

L:12483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:321
L:12495 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:321
L:12498 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:321
L:12504 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:321
L:12545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:322
L:12548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:322
L:12671 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:325
L:12924 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:334
L:12927 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:334
L:12944 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:335
L:12947 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:335
L:12972 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:336
L:12975 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:336
L:12978 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:336
L:12981 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:336
L:13008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:336
L:14379 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=362
L:14395 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=363
L:14428 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=365
L:14444 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=366
L:14477 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=368
L:14493 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=369
L:14526 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=371
L:14542 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=372
L:14575 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=374
L:14608 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=376
L:14624 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=377
L:14646 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=378
L:14668 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=379
L:14690 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=380
L:14712 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=381
L:14734 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=382
L:14756 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=383
L:14778 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=384
L:14800 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=385
L:14822 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=386
L:14844 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=387
L:14866 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=388
L:14888 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=389
L:14910 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=390
L:14932 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=391
L:14954 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=392
L:14976 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=393
L:14998 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=394
L:15020 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=395
L:15042 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=396
L:15064 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=397
L:15086 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=398
L:15108 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=399

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/432,503

DATE: 10/18/2001

TIME: 09:34:59

Input Set : N:\Crf3\RULE60\09432503.txt

Output Set: N:\CRF3\10182001\I432503.raw

L:15130 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=400
 L:15152 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=401
 L:15174 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=402
 L:15196 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=403
 L:15218 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=404
 L:15240 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=405
 L:15262 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=406
 L:15284 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=407
 L:15306 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=408